

WHAT IS CLAIMED IS:

1. A transceiver system, comprising:

a transmitter portion arranged on a bottom layer of a multi-layer board, the transmitter portion capable of providing signals to a transmitter optical subassembly;

a receiver portion arranged on the bottom layer of the multi-layer board, the receiver portion capable of receiving signals from a receiver optical subassembly;

a high-voltage power supply arranged on a top layer of the multi-layer board, the high-voltage power supply providing a bias voltage for the receiver optical subassembly; and

a metallic ground plane arranged on a first intermediate layer between the top layer and the bottom layer, the metallic ground plane providing electrical isolation between the high-voltage power supply and the transmitter portion and the receiver portion.

2. The system according to claim 1, wherein the transmitter portion and the receiver portion are arranged in a split-ground arrangement.

3. The system according to claim 1, wherein a second intermediate layer having vias is arranged between the first intermediate layer and the top layer.

4. The system according to claim 1, wherein a third intermediate layer having vias is arranged between the first intermediate layer and the bottom layer.

5. The system according to claim 4, wherein an interconnect layer is arranged between the first intermediate layer and the third intermediate layer.

6. The system according to claim 1, further including a microcontroller system arranged on the top layer and the bottom layer.

7. A transceiver system, comprising:

means for receiving signals from a receiver optical subassembly;

means for transmitting signals through a transmitter optical subassembly;
means for generating a high-voltage bias for the receiver optical subassembly;

means for electrically isolating the means for generating the high-voltage bias from the means for receiving and the means for transmitting.

8. A method of isolating from a high voltage power supply, comprising:

arranging the high voltage power supply on a top layer of a multi-stack circuit board;

arranging other circuitry on a bottom layer of the multi-stack circuit board;
and

arranging a shielding plane on an intermediate layer of the multi-layer circuit board.

9. The method of claim 8, wherein arranging other circuitry on the bottom layer includes arranging a receiver and a transmitter on the bottom layer.

10. The method of claim 8, further including providing a split ground between the high-voltage power supply and the other circuitry.

11. The method of claim 8, further including arranging a first intermediate layer between the top layer and the bottom layer, the first intermediate layer including vias to provide electrical contact with traces on the top layer.

12. The method of claim 11, further including arranging a second intermediate layer between the first intermediate layer and the intermediate layer, the second intermediate layer providing traces.

13. The method of claim 12, further including arranging a third intermediate layer between the intermediate layer and the bottom layer, the third intermediate layer including vias.

14. A transceiver, comprising:

means for providing a bias voltage formed on a multi-layer board;
means for receiving a signal formed on the multi-layer board;
means for transmitting a signal formed on the multi-layer board; and
means for isolating the means for providing a bias voltage from the means
for receiving a signal and the means for transmitting a signal on the multi-layer board.